

# **Afghanistan, Iraq and the Kurdistan Region of Iraq**

## **Post Conflict Prospects and Opportunities**

\$1,532,581,650,000

Or

\$10.5 million an hour

# Iraq

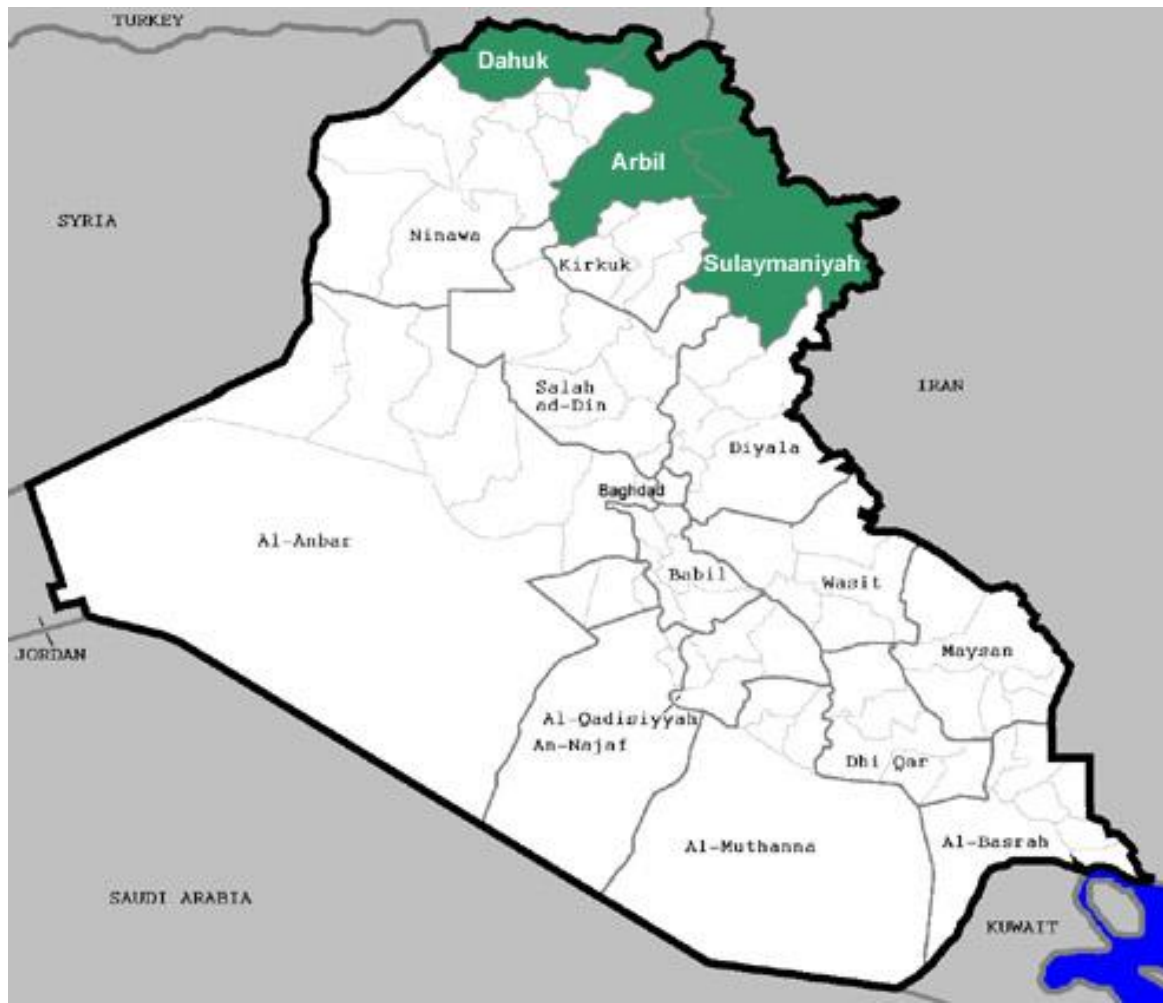


- Country Analysis Brief Overview
- Fifth largest proven crude oil reserves in the world
- Surpassed Iran as the second largest producer of crude oil in OPEC at the end of 2012.
- Fallen behind ambitious targets because of infrastructure constraints and political disputes.

- Iraq was the sixth largest net exporter of petroleum liquids in the world in 2012
- The majority of Iraqi natural gas production is flared
- After years of power shortages, Iraqi efforts to increase generating capacity are moving forward. Iraq plans to triple generating capacity to 27 gigawatts by the end of 2015.

# Kurdistan

# Where in the world is Kurdistan?





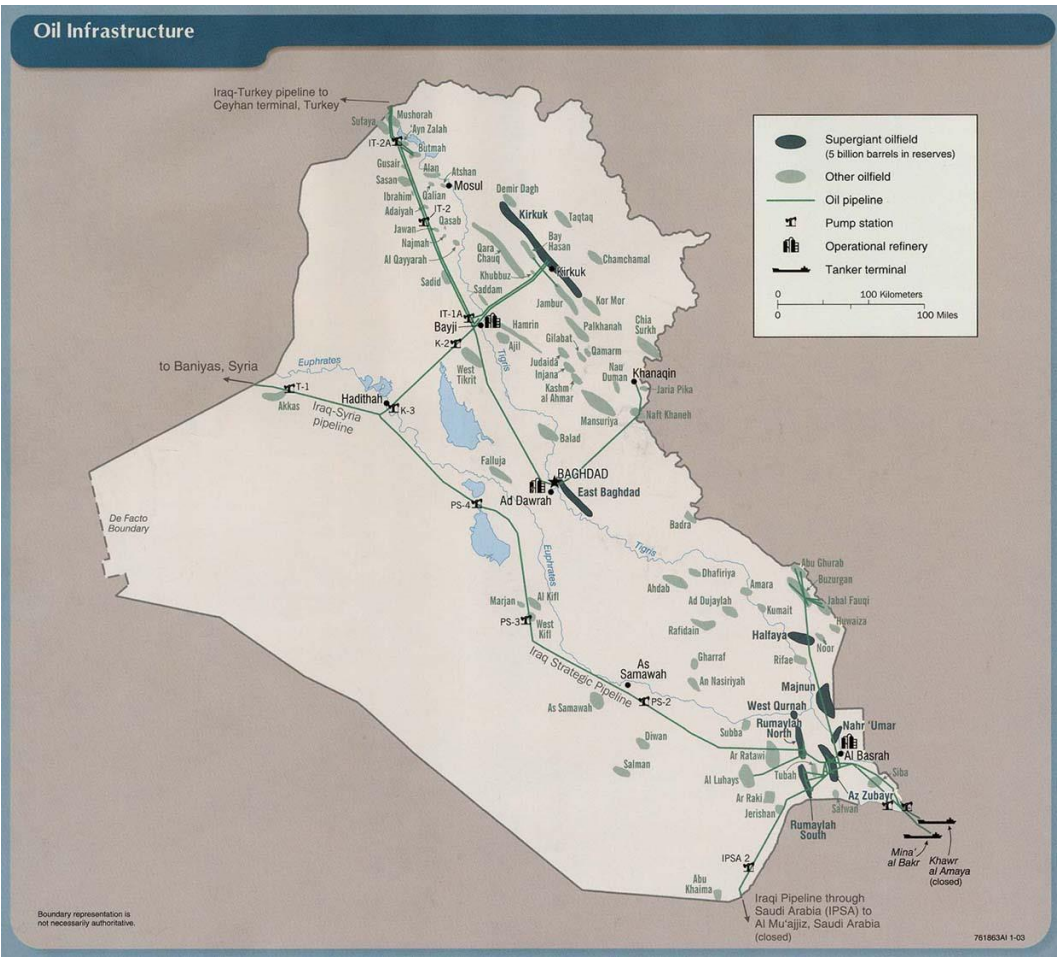
# The Challenges

- **The Neighborhood**
- **The KRG - Baghdad Disconnect**
- **The novel terms of the KRG standard agreement**
  - **The good: Production Sharing Format**
  - **The bad: KRG can nominate new “partners” after production is achieved**
- **The tonic - Industry Consensus: Exxon, Chevron, Total, Gulf Keystone, etc., are there !**

# Why is Kurdistan Challenging?

## FUELLING THE TENSION WHERE PROBLEMS LIE





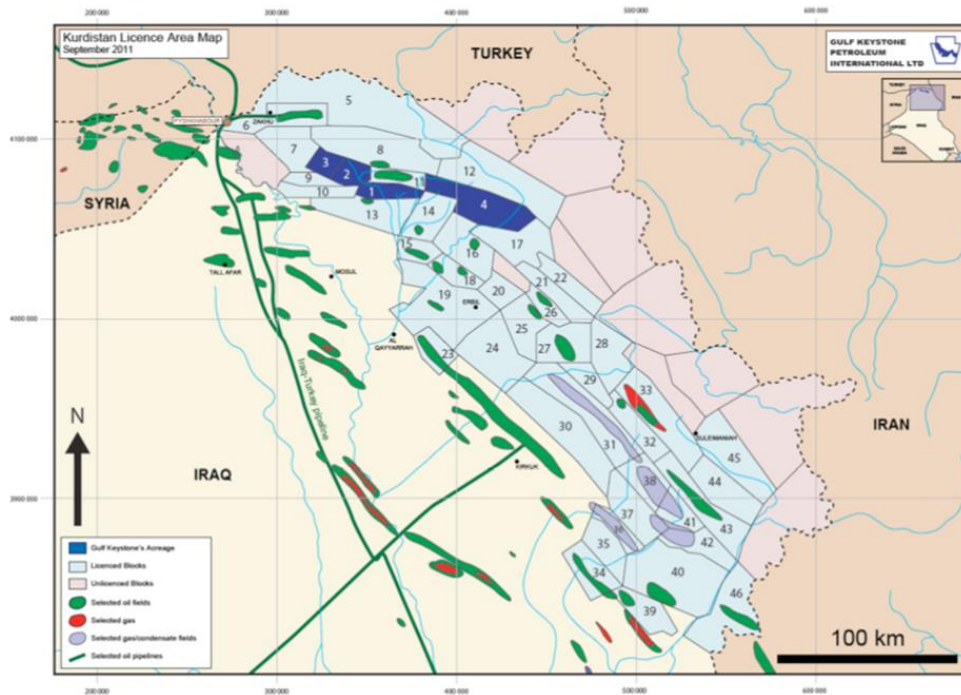
# What the industry is doing

- **US energy giant Chevron signs oil deal with Iraqi Kurdistan—June 18, 2013**
- **Joining 39 companies from 19 countries in KRG oil and gas activities**

Kurd Net June 18, 2013

ekurd.net

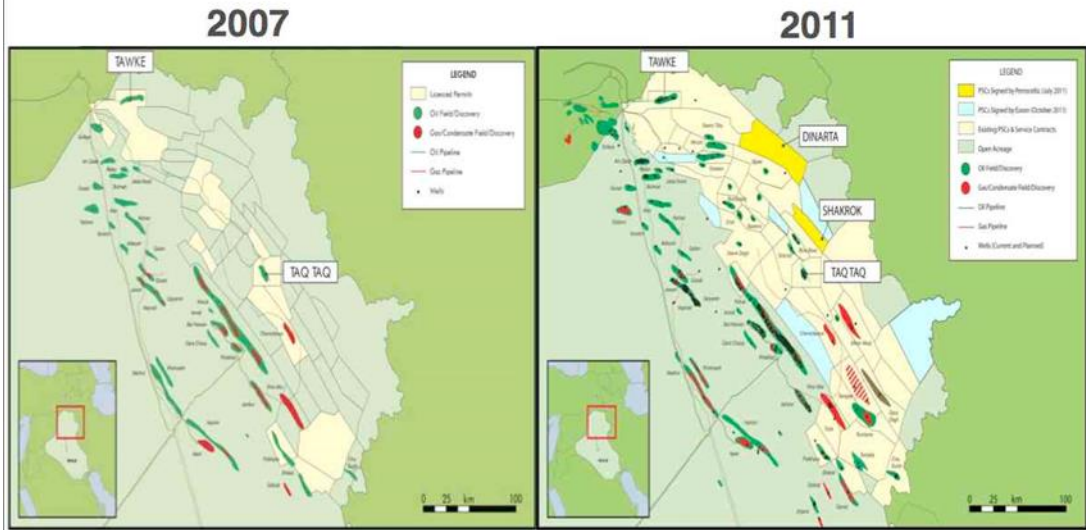
## Kurdistan Region of Iraq Licences



Block	Operator
1 Shaikan	Gulf Keystone
2 Sheikh Adi	Gulf Keystone
3 Ber Bahr	Gene/Vallares
4 Akri-Bijeel	MDL
5 Sindi-Amedi	Perenco
6 Tawke	DNO
7 Dohuk Central	Murphy Oil
8 Sarsang	HKN Energy
9 Dohuk	DNO
10 Al Qosh	Komet
11 Atrush	GEP
12 Dinarta	Hess
13 Ain Sifri	Hunt
14 Rovi	Reliance
15 Bardarash	Affren
16 Sarta	Reliance
17 Hanir	Marathon Oil
18 Erbil	DNO
19 Hawler	Norbest
20 Mala Omar	OMV
21 Safen	Marathon Oil
22 Shakrok	Hess
23 K18	KEPCO
24 Qush Tappa	KNOC
25 Shorish	OMV
26 Bina Bawi	OMV
27 Taq Taq	TIPCO
28 Khalakan	New Age
29 Kewa Chirmila	TIPCO
30 K32	KEPCO
31 Chem-Chemal	Dana Gas
32 Basian	KNOC
33 Miran	Heritage
34 Pulkhana	Shamran
35 Taxa	Oil Search
36 Khor Mor	Dana Gas
37 K39	Talisman
38 Sangaw North	Sterling
39 Shakal	Shakal
40 Garmian	Western Zagros
41 Sangaw South	KNOC
42 Kurdamir	Talisman
43 Qara Dagh	Niko
44 Baranan	Talisman
45 Arbat	Shamran
46 Chia Surkh	Longford

## Kurdistan Region of Iraq

Emerging World Class Province – Acreage Awards & Rapid Discovery



# What the KRG is projecting

- **Iraq's Kurdistan Region expects to produce one million barrels of oil per day (bpd) by 2015, an ambitious fivefold increase over current output, the autonomous northern enclave's natural resources minister says in a report.**

Kurd Net 6/7/2013

ekurd.net

# What producers are saying about the KRG

- **“The Kurdistan region is proving to be a world class hydrocarbon resource base, discovery is well above industry standards and the growth rate of infrastructure development is accelerating,” said Nicholas Atencio, DNO general manager of Kurdistan, speaking at ADIPEC last month.” (ADIPEC 2012).**

DNO International is an entrepreneurial independent E&P company, geographically focused on the Middle East and North Africa with operations in Yemen, the Kurdistan region of Iraq, Tunisia, Oman and Ras Al Khaimah. The group is headquartered in Oslo and listed on the Oslo Stock Exchange.



# What producers are producing

- **Gulf Keystone Petroleum will produce 40,000 barrels of oil per day (bpd) within the coming weeks after the Iraqi Kurdistan-focused explorer's field development plan was approved, the region's energy ministry said on Wednesday.**

Kurd Net, June 26, 2013

[www.ekurd.net](http://www.ekurd.net)

# The Potential: Iraqi Reserves

- **According to OPEC, Iraq's resources of 143 billion barrels of crude oil and 126.7 trillion cubic feet of gas are the fourth largest in the world after Venezuela, Saudi Arabia and Iran. However, Iraq's oil production is almost half that of Iran, meaning there is plenty of room for growth.**

PUK Media October, 2012

[Pukmedia.com/EN](http://Pukmedia.com/EN)

# The Potential: KRG Reserves

- **Kurdistan accounts for 43.7 billion barrels of proven oil reserves, 25.5 billion more barrels of unproven reserves and between 3 and 6 trillion cubic meters of gas (30% of Iraq's proven oil reserves). If Kurdistan was a country, the amount of oil and gas reserves would place it among the top 10 oil rich countries in the world.**

Pukmedia.com October, 2012

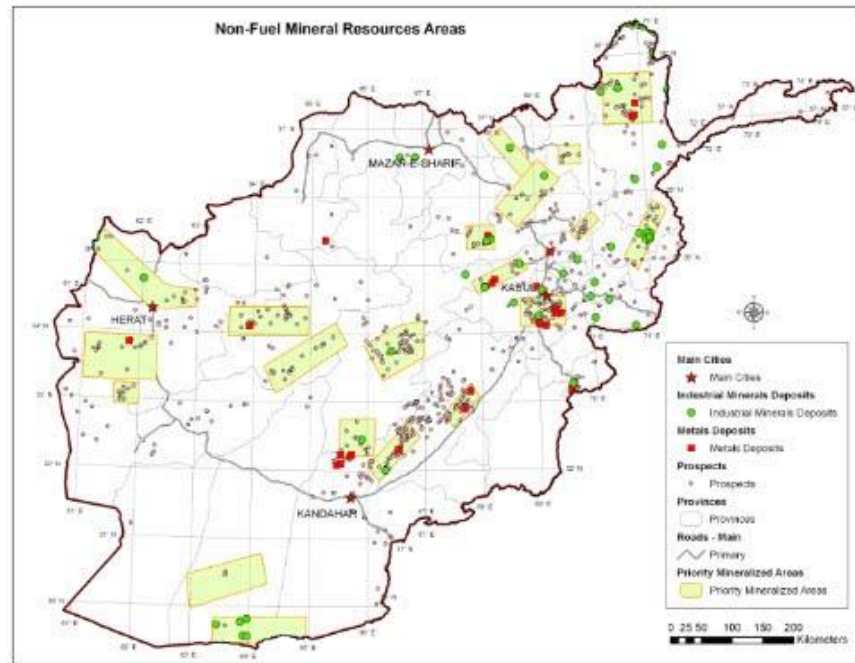


# AFGHANISTAN

## Afghan Mineral Resources (Non-Fuel): Estimated Value



**\$908B:** Current potential value\* of metal and industrial mineral development in Afghanistan, at current prices in today's global economic downturn.



MINERALS	
Iron	\$420,850,000,000
Copper	\$273,998,000,000
Niobium	\$81,200,000,000
Cobalt	\$50,820,000,000
Gold	\$24,996,000,000
Molybdenum	\$23,892,000,000
Rare Earth Elements	\$7,406,000,000
Asbestos	\$6,322,000,000
Silver	\$5,335,000,000
Potash	\$5,090,000,000
Aluminum	\$4,434,000,000
Graphite	\$671,000,000
Lapis Lazuli	\$650,000,000
Fluorite/Fluorspar	\$644,000,000
Phosphorus	\$581,000,000
Lead and Zinc	\$547,000,000
Mercury	\$495,000,000
Strontium	\$408,000,000
Sulfur	\$234,000,000
Talc	\$164,000,000
Magnesite	\$161,000,000
Kaolin	\$50,000,000
<b>TOTAL</b>	<b>\$908,948,000,000</b>

**USGS agrees with assertion:**  
**"At least 70% of Afghanistan's mineral resources are yet to be identified."**

\* Known and estimated "undiscovered" resources anticipated by USGS and AGS and using prices as of 12/09.

- Amu River Basin
- 75,000 sq km
  - 962 mm bbls
  - 52 tcf
  - \$12.5 mm Seismic
  - 480 sq. km.

CNOC

25year

70% Profit

- The Afghan-Tajik Crude Oil Zone
- 31,000 sq Km
- 3 companies
  - 1.6bn investment
  - \$12bn investment in 12 years
  - 1000 jobs
  - 12000 jobs



- Oil Fields in Herat
- 14,000 sq km
- Unknown reserves

- Katawaz Zone
  - 4,000 square kilometres
- Geologists say Katawaz crude oil zone reserves stretch inside Pakistan. The recent exploration of oil and gas in the border area with Pakistan supported the predictions of the geologists

- Helmand Crude Oil Zone
  - 131,000sq km
  - Unknown possible reserves